

REMARKS

Claims 1 and 5–13 are pending in this application. Claims 1, 5, 6, and 10 have been amended, and new claims 12 and 13 have been added by this amendment.

Claims 1 and 5–11 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,685,776 to Stambolic et al. This rejection is respectfully traversed for the reason that Stambolic et al. neither show nor suggest the claimed invention.

The disclosed and claimed invention solves a specific problem in a specific type of game controller. More particularly, the disclosed and claimed invention eliminates the possibility of damage to the printed circuit board due to the replacement of batteries and operation of push switches. As shown in Figure 1, the main board 1 is provided with a parts holder 2 having a central, table portion 4. Figures 2B and 2C show that the parts holder 2 is attached to the main board 1 by means of positioning pins 21 inserted into holes in the main board and engaging hooks 22, which engage square holes in the main board. Figures 2B and 2C also show that the table portion 4 is elevated above the surface of the main board. Battery terminal holder portions 24, 25 are surrounded by a rib formed on the left and right sides of the table portion 4. When the battery terminal board (not shown) is set to the battery terminal holder portions 24, 25, lower end portions of the battery terminal board are projected downward via holes 26 in the bottom plate, as shown in Figure 3B. Push switches 11 provided on the push switch boards 10 are operated by push keys 3. The switch boards 10 are supported by board holder portions 9 which project vertically above the parts holder 2. These holder portions 9 are provided with ribs 29 on the back surface and ribs on the front surface.

Since the battery terminal board is held by the parts holder 2, the back-and-forth movement of the battery terminal board is suppressed by the ribs 23 that surround the periphery of the battery terminal board. The ribs of the board holder portions 9 withstand the pressure applied by the push keys. In this way, the parts holder 2 isolates the main board 1 from the bending and torsional stresses relating to battery replacement and operation of the push keys, thereby preventing cracking

of printed-circuit patterns or damage to soldered portions of the battery contact board.

Stambolic et al. disclose an elongated stick-like hand-held game device employing an elongated tubular housing enclosure and unique user controls that take advantage of the device shape and size (col. 1, line 64, to col. 2, line 7, Fig. 1). Figure 3A shows a cross-section of the device. An intermediate housing body 30 is provided with a recessed area 32 for the display 22. The intermediate body 30 provides a battery housing chamber 34 enclosed by a battery housing cover 35 within the body 30. The knob 36 switches the switch 18 based upon a twisting action, and knob 38 provides a pull switch mechanism. Push button ends are provided as push button 40 associated with the knob 36 and a bush button 42 associated with knob 38. The knob 36 may be pulled as well as twisted and is supported by a spring 44. A spring 46 is also provided with the knob 38 to facilitate the pull switch function of the knob 38. The knob 36 performs switching of the switch 18 via rotation of the knob 36 which in the hollow interior portions thereof includes a laterally extending protrusion 48 which at the extremes of rotation of the knob 36 is run into contact with the switch 18 for closure thereof. The knob 38 is provided with wiping contacts 50 interior thereto which make electrical contact at the surface of a printed circuit board (PCB) 52. Thus, as the knob 38 is extended and returned to position, the wiping contact 50 is moved inward and outward along the surface of the PCB 52 to make and break electrical switch contacts thereon. (See col. 4, lines 41–67.)

As will be appreciated from the foregoing, Stambolic et al. neither recognize nor provide a solution to the problem solved by the disclosed and claimed invention. Indeed, the Stambolic et al. device is a completely different device in shape, configuration and operation. In his “Response to Arguments” (see page 4 of the Office Action), the Examiner indicates that the limitation of the parts holder member (formerly recited as the “buffer member”) to be interposed between the switch board and the main board is “a design choice since it does not bring unexpected results to the functionality of the controller.” However, it is clear from the present disclosure that the Examiner is in error in this assertion. In particular, as set out on page 5 of the specification, the inventor has discovered

that interposing the parts holding member between a switch board and a main board allows the parts holding member to receive the bending and torsional stresses that would be otherwise applied to the main board during battery changes and when the switch is pushed. Thus, the “functionality of the controller” is improved because there is a lesser likelihood of damage to the main board. Further, while switch boards and main boards are well known in the art, and one of ordinary skill in the art may attempt various configurations, there is no particular motivation or expected benefit from providing a parts holding member interposed between a switch board and a main board in Stambolic et al., as specifically recited in claim 1. The improvements provided by this particular configuration of the claimed controller are significant, unexpected and would not be obvious to one of ordinary skill in the art.

Element 30 in Figure 3A in Stambolic et al. (i.e., the part of the Stambolic et al. device that the Examiner purports to make obvious the parts holding member) is a part of the tubular housing enclosure 12. As shown in Figure 3A, this element is neither “interposed” between nor “buffers” anything. Assuming, *arguendo*, that element 30 in Stambolic et al. did teach a controller element that functioned as a parts holding (or buffer) member, Stambolic et al. would still fail to teach or make obvious the present invention as claimed. Specifically, as previously discussed, claim 1 requires that the parts holding member be interposed between the main board and switch board. If element 30 in Stambolic et al. were to be interposed between the printed circuit board 52 (i.e., the element that the Examiner suggests equates to the main board) and a switch board (which the Examiner acknowledges Stambolic et al. fail to teach – see page 2 of the Office Action), then a hole would be left in the housing body of the controller and thus resulting in a weaker structure left vulnerable to breakage and short-circuiting. As previously discussed, the underlying purpose of the present invention is to prevent breakage and short-circuiting (see page 5 of the specification). At no point do Stambolic et al. teach or suggest the advantages of constructing a game controller in such a way as to prevent breakage and short-circuiting in the manner disclosed and claimed.

Claims 1, 5, 6, and 10 have been amended to replace the recitation of

“buffer member” by the phrase “parts holding member”, which has antecedent basis in the specification. In addition, independent claim 1 has been further amended to more clearly define over Stambolic et al. In Stambolic et al., the housing body 30 of the controller holds the switch 74A which is adapted to be pushed in a vertical direction with respect to the main board 52. Therefore, in a case where the switch is pushed, there is no possibility of damage to the main board and the push switch board portion. On the other hand, in the present invention, the main board and the switch board extend in a direction perpendicular to each other. Therefore, the parts holding member must be provided between the main board and the switch board in order to receive the stress so as to protect the soldering portion of the switch board and to prevent the bending and torsional stress applied on the main board in a case where the switch is pushed in a direction perpendicular to the switch board.

New claims 12 and 13 are presented in this amendment. Claim 12 recites in particular detail the structure of the disclosed invention. Specifically, claim 12 recites a game controller which comprises a main board 1 and a parts holder 2. The parts holder is mounted on the main board and has “a table portion provided at the center thereof, said table portion being supported by a rib integrally formed from a surface of the table portion to a main surface of the parts holder”. A push switch 11 is provided on a push switch board 10 which is supported by a board holder portion 9 “integrally formed perpendicularly on an end of said parts holder”. A push key 3 engages the push switch 11, and battery terminal holder portions 24, 25 are “formed on both sides of the table portion and surrounded by said rib”. The claimed structure is such that “the parts holder receives external force applied during battery replacement insulating the main board from mechanical stress.”

Claim 13, dependent on claim 12, recites the details of the manner in which the parts holder is mounted to the main board.

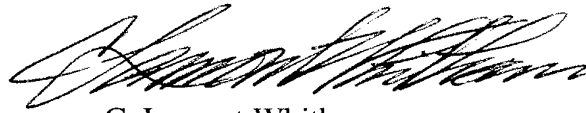
In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 and 5–13 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for

allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'C. Lamont Whitham', is written over a horizontal line.

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